

Notice of Allowability

Applicati n No.

10/024,655

Examin r

Tina M Lin

Applicant(s)

NISHITA, NAOKI

Art Unit

2874

-- The MAILING DATE f this communication appears n the c ver sheet with the c rrespondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 14 June 2004 amendment.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☒ The drawings filed on 14 December 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachm nt(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1003
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Applicant's arguments filed on 14 June 2004 have been fully considered. Claims 1-4 are therefore allowed with the additional limitations included. Claim 5 has been previously allowed.

Examiner's Statement Of Reasons For Allowance

The following is an examiner's statement of reasons for allowance: In regards to claims 1-4, the prior art of record in this application fails to disclose or reasonably suggest an optical connector assembly comprising a receptacle connector, a plug connector fitted into the receptacle where the connecting endface of the multimode fiber is fixed to the plug connector and a light emitting element having a numerical aperture larger than the numerical aperture of the multimode fiber and a convergent lens for converging the light emitted, where the light emitted has a numerical aperture about 0.25 or more but smaller than the numerical aperture of the multimode fiber arranged in the receptacle. The closest prior art of record is U.S. Patent 5,751,878 to Kyoya. Kyoya discloses a light-emitting module with a receptacle connector and a plug connector, where the light emitting diode has a radiation numerical aperture larger than that of the optical fiber and a convergent lens for converging the light emitted from the light emitting diode to provide a numerical aperture smaller than that of the optical fiber. The divergent beam from the light emitting diode and the convergent beam from the lens is shown in Figure 5. However, Kyoya fails to specifically disclose the connecting end face of the fiber to be arranged in a position deeper than the connecting endface of the plug, the optical fiber to be a multimode optical fiber and for the numerical aperture of the light emitting element to be about 0.25 or greater but smaller than the numerical aperture of the multimode fiber. Instead Kyoya discloses the numerical aperture to be less than 0.1 in order to "allow for the positional dislocation not to be affected by the magnification." (Column 3 Lines 20-25) Therefore, claims 1-4 are allowed.

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In regards to claim 5, claim 5 has been allowed in the previous Office action mailed 11 March 2004 (paper number 032004).

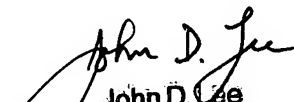
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M Lin whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TML


John D. Lee
Primary Examiner